



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**RBE1X56-122-294-5**  
**Job Sheet 188149**



Part No: RBE1X56-122-294-5

Job Qty: 2 pcs

Part Name: Threaded Rod



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/4/19

Job Tracking No:

Due Date: 3/15/19 *Mardi S*

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBE1X56-122-294 Rev.1 IPP Rev. A 19.01.02 New issue DP Verify DD

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation  | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier | Sign-off            |
|-------|------------|-------|------------|----------|-----------|---------|---------------------|---------------------|
|       |            |       |            |          | Setup Hrs | Run Hrs |                     |                     |
| 100   | SL-154 - 1 | 2 pcs | 3/15/19    | 3/15/19  | 0.00      | 0.40    | SL-154 - 1          | <i>MSP 19/02/21</i> |
| 110   | QC 2       | 2 pcs | 3/15/19    | 3/15/19  | 0.00      | 0.00    | QC 2 - 1            |                     |
|       |            |       |            |          |           |         | QC 2 - 12           |                     |
|       |            |       |            |          |           |         | QC 2 - 14           |                     |
|       |            |       |            |          |           |         | QC 2 - 17           |                     |
|       |            |       |            |          |           |         | QC 2 - 19           |                     |
|       |            |       |            |          |           |         | QC 2 - 2            |                     |
|       |            |       |            |          |           |         | QC 2 - 20           |                     |
|       |            |       |            |          |           |         | QC 2 - 22           |                     |
|       |            |       |            |          |           |         | QC 2 - 23           |                     |
|       |            |       |            |          |           |         | QC 2 - 25           |                     |
|       |            |       |            |          |           |         | QC 2 - 32           |                     |
|       |            |       |            |          |           |         | QC 2 - 33           | <i>MSP 19/02/21</i> |
|       |            |       |            |          |           |         | QC 2 - 35           |                     |
|       |            |       |            |          |           |         | QC 2 - 38           |                     |
|       |            |       |            |          |           |         | QC 2 - 39           |                     |
|       |            |       |            |          |           |         | QC 2 - 4            |                     |
|       |            |       |            |          |           |         | QC 2 - 40           |                     |
|       |            |       |            |          |           |         | QC 2 - 44           |                     |
|       |            |       |            |          |           |         | QC 2 - 45           |                     |
|       |            |       |            |          |           |         | QC 2 - 48           |                     |
|       |            |       |            |          |           |         | QC 2 - 49           |                     |
|       |            |       |            |          |           |         | QC 2 - 50           |                     |
|       |            |       |            |          |           |         | QC 2 - 51           |                     |
|       |            |       |            |          |           |         | QC 2 - 52           |                     |
|       |            |       |            |          |           |         | QC 2 - 54           |                     |
|       |            |       |            |          |           |         | QC 2 - 56           |                     |
|       |            |       |            |          |           |         | QC 2 - 57           |                     |
|       |            |       |            |          |           |         | QC 2 - 62           |                     |
|       |            |       |            |          |           |         | QC 2 - 63           |                     |
|       |            |       |            |          |           |         | QC 2 - 8            |                     |
| 120   | QC 8       | 2 pcs | 3/15/19    | 3/15/19  | 0.00      | 0.00    | QC 8 - 12           |                     |



Container No: S155560



Part: RBE1X56 - 122 - 294 - 5

Job No: 188149

Serial No/Batch: S155560

Revision: 1

Inspector:

Exp Date:

Instructions:

Date: 03/13/19

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



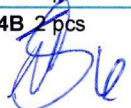
## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |



|                                                                                   |                               |       |         |           |                                  |
|-----------------------------------------------------------------------------------|-------------------------------|-------|---------|-----------|----------------------------------|
|                                                                                   |                               |       |         | QC 8 - 14 |                                  |
|                                                                                   |                               |       |         | QC 8 - 17 |                                  |
|                                                                                   |                               |       |         | QC 8 - 20 |                                  |
|                                                                                   |                               |       |         | QC 8 - 25 |                                  |
|                                                                                   |                               |       |         | QC 8 - 3  |                                  |
|                                                                                   |                               |       |         | QC 8 - 32 |                                  |
|                                                                                   |                               |       |         | QC 8 - 33 |                                  |
|                                                                                   |                               |       |         | QC 8 - 35 |                                  |
|                                                                                   |                               |       |         | QC 8 - 38 |                                  |
|                                                                                   |                               |       |         | QC 8 - 39 |                                  |
|                                                                                   |                               |       |         | QC 8 - 4  |                                  |
|                                                                                   |                               |       |         | QC 8 - 44 |                                  |
|                                                                                   |                               |       |         | QC 8 - 45 |                                  |
|                                                                                   |                               |       |         | QC 8 - 49 |                                  |
|                                                                                   |                               |       |         | QC 8 - 58 |                                  |
|                                                                                   |                               |       |         | QC 8 - 8  | B.a 19-02-23                     |
|                                                                                   |                               |       |         | QC 8 - 9  |                                  |
|                                                                                   |                               |       |         | QC 8 - 68 |                                  |
| 130                                                                               | Outsource - 12 - Black Oxide  | 2 pcs | 3/15/19 | GRO002-VC | 0219-02-20                       |
| 140                                                                               | Packaging 2-1 - Receive - B4B | 2 pcs | 3/15/19 | 0.00 0.00 | Packaging 2 - 1 - B4B            |
|  |                               |       |         |           | Packaging 2 - 2 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 3 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 5 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 4 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 6 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 7 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 8 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 9 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 2 - 10 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 11 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 12 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 13 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 14 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 15 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 16 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 17 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 18 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 19 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 20 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 21 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 22 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 23 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 24 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 25 - B4B           |
|                                                                                   |                               |       |         |           | Packaging 2 - 26 - B4B           |
| 150                                                                               | QC 6                          | 2 pcs | 3/15/19 | 0.00 0.00 | QC 6 - 38                        |
|                                                                                   |                               |       |         |           | QC 6 - 42                        |
|                                                                                   |                               |       |         |           | QC 6 - 9                         |
|                                                                                   |                               |       |         |           | QC 6 - 68                        |
|                                                                                   |                               |       |         |           | QC 6 - 61                        |
|                                                                                   |                               |       |         |           | DAS<br>MAR 13 2019<br>58<br>9-89 |
| 160                                                                               | Packaging 3-1 - Stock - B4B   | 2 pcs | 3/15/19 | 0.00 0.00 | Packaging 3 - 1 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 2 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 3 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 4 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 5 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 6 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 7 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 8 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 9 - B4B            |
|                                                                                   |                               |       |         |           | Packaging 3 - 10 - B4B           |
|                                                                                   |                               |       |         |           | DAS<br>28<br>9-89                |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |



|                |       |         |           |                        |            |
|----------------|-------|---------|-----------|------------------------|------------|
|                |       |         |           | Packaging 3 - 11 - B4B |            |
|                |       |         |           | Packaging 3 - 12 - B4B |            |
|                |       |         |           | Packaging 3 - 13 - B4B |            |
|                |       |         |           | Packaging 3 - 14 - B4B |            |
|                |       |         |           | Packaging 3 - 15 - B4B |            |
|                |       |         |           | Packaging 3 - 16 - B4B |            |
|                |       |         |           | Packaging 3 - 17 - B4B |            |
|                |       |         |           | Packaging 3 - 18 - B4B |            |
|                |       |         |           | Packaging 3 - 19 - B4B |            |
|                |       |         |           | Packaging 3 - 20 - B4B |            |
|                |       |         |           | Packaging 3 - 21 - B4B |            |
|                |       |         |           | Packaging 3 - 22 - B4B |            |
|                |       |         |           | Packaging 3 - 23 - B4B |            |
|                |       |         |           | Packaging 3 - 24 - B4B |            |
|                |       |         |           | Packaging 3 - 25 - B4B |            |
|                |       |         |           | Packaging 3 - 26 - B4B | DAS        |
| 170 QC 21 - SA | 2 pcs | 3/15/19 | 0.00 0.00 | QC 21 - SA - 21        | 21<br>9-55 |

Part Op 100 - 1-Machine as per folio FC \_\_\_\_\_ FOLIO REV: \_\_\_\_\_ DWG REV: \_\_\_\_\_ 2-Debur  
 Descriptions: 130 - -Issue P/O: 045700 -Black oxide finish, MIL-C-13924C Class 1 -Apply thin layer of oil/CPC per MIL-PRF-  
 16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess. -Material type;  
 4140 -Certificate of Conformity is required  
 140 - Certificate of Conformity is required

| Job BOM     |                |                    |                |           |
|-------------|----------------|--------------------|----------------|-----------|
| Part / Item | Component Name | Quantity           | Operation      | Container |
| M1018R0.750 | M1018R0.750    | .8860 ft (.443 ea) | 100-SL-154 - 1 | 5000779   |

| Job Allocations |                |          |           |           |
|-----------------|----------------|----------|-----------|-----------|
| Operation       | Component Part | Required | Inventory | Allocated |
| 100-SL-154 - 1  | M1018R0.750    | 1        | 32        | 0         |

MAT 009-J

| Part Specifications                |  |
|------------------------------------|--|
| Specifications could not be found. |  |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

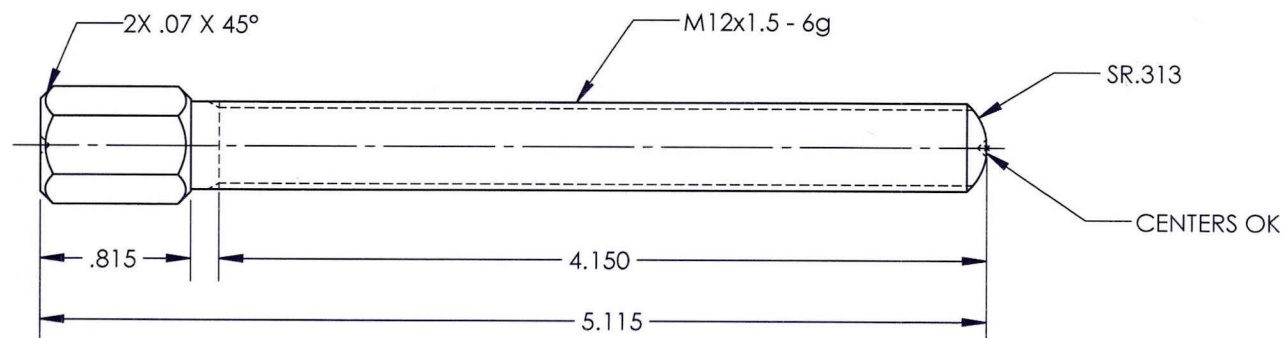
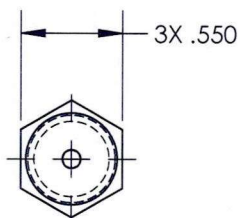
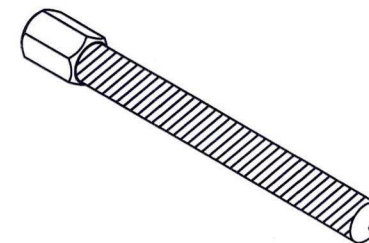
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |





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| REVISIONS |         |                                                                                                     |            |         |
|-----------|---------|-----------------------------------------------------------------------------------------------------|------------|---------|
| REV       | ECR     | DESCRIPTION                                                                                         | DATE       | INITIAL |
| 1         | 16-0160 | -5 CH'D MATERIAL, WAS 1018 IS 1018/1020 CR; CH'D DIM WAS M12x1.5 IS M12x1.5 - 6g; ADDED DIM SR.313. | 10/11/2016 | SM      |
|           |         |                                                                                                     |            | JAG     |



FL622

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WITHOUT NOTICE  
WORK ORDER  
NO. 1881491 MJS  
19-01-04

THREADED ROD

|                                     |                              |
|-------------------------------------|------------------------------|
| <b>DART<br/>AEROSPACE</b>           |                              |
| TITLE<br><b>PUSH-OUT DEVICE</b>     |                              |
| DWG NO.<br><b>RBE1X56-122-294-5</b> | REV<br><b>1</b>              |
| MAT'L 1018/1020 CR                  | UNLESS OTHERWISE SPECIFIED   |
| HEAT TREAT                          | DIMENSIONS ARE IN INCHES     |
| FINISH BLACK OXIDE                  | .XXX ± .005 FRACTIONS ± 1/8  |
| SPEC                                | .XX ± .01 ANGLES ± 5°        |
|                                     | .X ± .1 SURFACES = 125/      |
| DRAWN BY: GILBERT                   | 1. BREAK ALL SHARP EDGES     |
| CHECKED: CLOUGH                     | .015 x 45° OR .015R          |
| OPPS APPR: ANDERSON                 | 2. DIMENSIONAL LIMITS APPLY  |
| QA APPR: LINDSAY                    | AFTER PLATING                |
| APPROVED: GILBERT                   | 3. INTERPRET DIM AND TOL PER |
|                                     | ASME Y14.5M-2009             |
|                                     | USED ON MODEL                |
|                                     | EC135                        |
| SCALE 1:1                           | DATE 6/14/2012               |
|                                     | SHEET 4 OF 6                 |





Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K64 1K7  
CANADA  
TEL: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

**Container No: S155560**



**Part: RBE1X56-122-294-5**

**Job No: 188149**

**Serial No/Batch: S155560**

**Revision: 1**

**Inspector:**

**Exp Date:**

**Instructions:**

**Date: 02/21/19**



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO042706



**Supplier:** GRO002-VC  
Group Altech  
2455 Halpern  
St Laurent  
QC  
H4S 1N9 Canada  
Phone: 514-335-3666  
Fax: 514-335-3868

**PO No:** PO042706  
**PO Date:** 2/26/19  
**Due Date:** 3/5/19  
**Purchase Order  
Revision:**  
**Revision Date:**  
**Ship-To Contact:** Tsimiklis, ChrisoulaPhone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 60  
**Freight Terms:**  
**Special Comments:**

## Items

| Line Item | Job    | Part                   | Description                                                                                                                                                                                                                                                                       | Status | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|--------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 1         | 189242 | RBE-350DAMPER          | Damper Spanner Wrench<br>-Issue P/O;<br>PO _____<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Certificate of Conformity is required                                                                                                                                           | Firmed | -       | 3/5/19   | 5 pcs          | 0 pcs             | 5 pcs   | \$2.35/pcs       | \$11.75        |
| 2         | 191018 | RBEVR-L11-0010-002-D-1 | Rod<br>-Issue P/O;<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III Or MILL-C23411A or MIL-PRF-81309 and wipe off excess.<br>-Material type; 4140<br>-Certificate of Conformity is required | Firmed | -       | 3/5/19   | 4 pcs          | 0 pcs             | 4 pcs   | \$14.13/pcs      | \$56.52        |





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1270 Aberdeen St  
Hawkesbury, ON  
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Canada

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# PURCHASE ORDER PO042706



## Items

| Line Item | Job    | Part                    | Description                                                                                                                                                                                                                                                                                   | Status | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|--------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 3         | 188149 | RBE1X56-122-294-5       | Threaded Rod<br>-Issue P/O;<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III<br>Or MILL-C23411A or MIL-PRF-81309 and wipe off excess.<br>-Material type; 4140<br>-Certificate of Conformity is required | Firmed | -       | 3/5/19   | 6 pcs          | 0 pcs             | 6 pcs   | \$2.35/pcs       | \$14.10        |
| 4         | 190249 | RBW6500X01611W142B-3T-1 | Plate<br>-Issue P/O;<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III<br>Or MILL-C23411A or MIL-PRF-81309 and wipe off excess.<br>-Material type; 1018<br>-Certificate of Conformity is required        | Firmed | -       | 3/5/19   | 4 pcs          | 0 pcs             | 4 pcs   | \$5.71/pcs       | \$22.84        |
| 5         | 189454 | RBT18565-1              | Hex Bit<br>-Issue P/O;<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III<br>Or MILL-C23411A or MIL-PRF-81309 and wipe off excess.<br>-Material type; DOM<br>-Certificate of Conformity is required       | Firmed | -       | 3/5/19   | 10 pcs         | 0 pcs             | 10 pcs  | \$1.10/pcs       | \$11.00        |

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9-89

6 X MAR 13 2019

4 X MAR 13 2019

10 X MAR 13 2019



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# PURCHASE ORDER PO042706



## Items

| Line Item    | Job    | Part                   | Description                                                                                                                                                                                                                                                                                                                     | Status | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|--------------|--------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 6            | 188147 | RBE1X56-122-294-1      | Outside Rod<br>-Issue<br>P/O;<br>-Black oxide finish,<br>MIL-C-13924C<br>Class 1<br>-Apply thin layer of<br>oil/CPC per MIL-<br>PRF-16173 Grade 3<br>Class 1 or MIL-c-<br>81309 Type III<br>Or MILL-C23411A or<br>MIL-PRF-81309 and<br>wipe off excess.<br>-Material type; 4140<br>-Certificate of<br>Conformity is<br>required | Firmed | -       | 3/5/19   | 5 pcs          | 0 pcs             | 5 pcs   | \$4.71/pcs       | \$23.55        |
| 7            | 191015 | RBEVR-L11-0010-002-B-3 | Rod<br>-Issue<br>P/O;<br>-Black oxide finish,<br>MIL-C-13924C<br>Class 1<br>-Apply thin layer of<br>oil/CPC per MIL-<br>PRF-16173 Grade 3<br>Class 1 or MIL-c-<br>81309 Type III<br>Or MILL-C23411A or<br>MIL-PRF-81309 and<br>wipe off excess.<br>-Material type; 1018<br>-Certificate of<br>Conformity is<br>required         | Firmed | -       | 3/5/19   | 4 pcs          | 0 pcs             | 4 pcs   | \$14.13/pcs      | \$56.52        |
| Grand Total: |        |                        |                                                                                                                                                                                                                                                                                                                                 |        |         |          |                |                   |         | \$196.28         |                |



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
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Tel (613) 632-5200

## PURCHASE ORDER PO042706



### Order Notes

#### Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

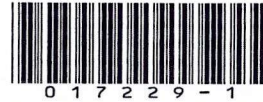
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 3/8/19 11:15 AM dart.tsimiklis.chrisoula





# Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9  
 Tel: 514-335-3666 Fax: 514-335-3868  
 www.groupaltech.com

## Bon de Livraison / Packing Slip

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Livré à / Ship to

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
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 Tel.: 613-632-5200 Fax.:

Client / Customer:

**DART AEROSPACE LTD**  
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 HAWKESBURY, ON, K6A1K7  
 CANADA  
 BUYER:

| Date expédition<br>Ship date |                                                                            | Créé Par<br>Generated By                                                                                                                       | Transport / No de Compte<br>Courier / Acc. No. | Bon de commande Client<br>Customer Purchase Order No. |                 |                   |               |                        |
|------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------|-----------------|-------------------|---------------|------------------------|
| 06-Mar-2019                  |                                                                            | Shankar Anand                                                                                                                                  |                                                | 042706                                                |                 |                   |               |                        |
| #Ligne<br>Line#              | No. de Série / # Pièce<br>Part Number / Line Item Details<br>Job # / Ref # | Description pièce(s)                                                                                                                           | CATG.<br>U/M                                   | Comm.<br>/Ordered                                     | Exp/<br>Shipped | Qté NC/<br>NC Qty | Qté<br>Scrap/ | À venir/<br>Back Order |
| 1                            | RBE-350DAMPER ✓<br>Rev.                                                    | RBE-350DAMPER<br>01 -OXIDE BLACK [OXIDE BLACK]<br>MIL-C-13924C CLASS 1                                                                         | OXIDE-BLACK<br>CH                              | 5                                                     | 5 ✓             | 0                 | 0             | 0                      |
| 2                            | RBEVR-L11-0010-002-D-1 ✓<br>Rev.                                           | RBEVR-L11-0010-002-D-1<br>01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL]<br>MIL-C-13924C CLASS1<br>APPLY A THIN LAYER OF OIL<br>WIPE OFF EXCESS OIL | OXIDE-BLACK<br>CH                              | 4                                                     | 4 ✓             | 0                 | 0             | 0                      |
| 3                            | RBE1X56-122-294-5 ✓<br>Rev.                                                | RBE1X56-122-294-5<br>01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL]<br>MIL-C-13924C CLASS 1<br>APPLY A THIN LAYER OR OIL<br>WIPE OFF EXCESS OIL     | OXIDE-BLACK<br>CH                              | 6                                                     | 6 ✓             | 0                 | 0             | 0                      |
| 4                            | RBW6500X01611W142B-3T-1 ✓<br>Rev.                                          | RBW6500X01611W142B-3T-1<br>01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL]<br>MIL-C-13924C CLASS1<br>APPLY A THIN LAYER<br>WIPE OFF EXCESS OIL       | OXIDE-BLACK<br>CH                              | 4                                                     | 4 ✓             | 0                 | 0             | 0                      |
| 5                            | RBT18565-1 ✓<br>Rev.                                                       | RBT18565-1<br>01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL]<br>MIL-C-13924C CLASS1<br>APPLY A THIN LAYER<br>WIPE OFF EXCESS OIL                    | OXIDE-BLACK<br>CH                              | 10                                                    | 10 ✓            | 0                 | 0             | 0                      |
| 6                            | RBE1X56-122-294-1 ✓<br>Rev.                                                | RBE1X56-122-294-1<br>01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL]<br>MIL-C-13924C CLASS1<br>APPLY A THIN LAYER<br>WIPE OFF EXCESS OIL             | OXIDE-BLACK<br>CH                              | 5                                                     | 5 ✓             | 0                 | 0             | 0                      |
| 7                            | RBEVR-L11-0010-002-B-3 ✓<br>Rev.                                           | RBEVR-L11-0010-002-B-3<br>01 -OXIDE-BLK & OIL [OXIDE BLACK AND OIL]<br>MIL-C-13924C CLASS1<br>APPLY A THIN LAYER<br>WIPE OFF EXCESS OIL        | OXIDE-BLACK<br>CH                              | 4                                                     | 4 ✓             | 0                 | 0             | 0                      |

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